REMARKS

Reconsideration and allowance of the claims are requested in view of the above amendments and the following remarks. Claims 1, 3, 16, 28 and 33 have been amended. Support for the claim amendments may be found in the specification and claims as originally filed. For example, support for the claim amendments may be found in the present specification at least at paragraphs 26 and 36-37 as well as claims 4, 18 and 30 as originally filed. No new matter has been added.

Upon entry of this amendment, claims 1-3, 5-17, 19-29 and 31-35 are pending, with claims 1, 16 and 28 being independent. Claims 4, 18 and 30 have been canceled without prejudice or disclaimer.

1. Rejections Under 35 U.S.C. §101

The Office Action rejects claims 16-27 under 35 U.S.C. §101 as being directed to non-statutory subject matter. Applicants respectfully traverse this rejection for at least the following reasons.

While applicants do not agree with the above assertions, for purposes of economy of prosecution, independent claim 16 has been amended to more clearly recite statutory subject matter. For example, claim 16 has been amended to recite a computer-implemented method, the method comprising identifying by a processing unit a connection between one or more nodes. Support for these amendments may be found in the specification of the present application, for example, at paragraph 26, and Figure 1. Claims 17 and 19-27 depend from claim 16 and, therefore, include the features of claim 16.

Since claim 18 has been canceled, the rejection of this claim is rendered moot.

For at least the above reasons, reconsideration and withdrawal of the rejection of claims 16-27 under 35 U.S.C. §101 are respectfully requested.

2. Rejections Under 35 U.S.C. §103

A. Rejections Based on Gupta et al. and Cummins et al.

The Office Action rejects claims 1-4, 6-7 and 10 under 35 U.S.C. §103(a) as being unpatentable over Gupta et al. (2002/0038374) in view of Cummins et al. (5,963,943). Applicants respectfully traverse this rejection for at least the following reasons.

The Office Action on page 3 concedes that Gupta et al. fails to disclose the feature of a topology loader as included in claim 1. However, the Office Action asserts that Cummins et al. discloses this feature (citing col. 12, lines 56-62).

Cummins et al. discloses storing and retrieving performance and topology information from a telecommunications network. A topology data loader retrieves weekly network topology data from a topology data file and loads it onto an open database management system (see abstract). The Office Action specifically refers to the following passage of Cummins et al.:

> FIG. 13 is a control flow diagram representing the operation of a topology data loader 316. The topology data loader 316 begins executing at step 1302 and immediately goes to step 1304. In step 1304, the topology data loader 316 connects to the ODB DBMS 322. Continuing to step 1306, the topology data loader 316 enters a loop to retrieve and process all of the topology data records stored in the topology data file 310. (see col. 12, lines 55-62)

Cummins et al. also teaches that topology messages provide information on the placement of specific network devices in the telecommunications network, for example switches located throughout a geographical area (see col. 1, lines 22-24; col. 1, line 67 – col. 2, line 3; col. 3, lines 7-10). Therefore, Cummins et al. at most appears to disclose a topology data loader that retrieves topology data and loads it onto a database system, where the topology data relates to the geographical placement of physical devices on a telecommunications network.

However, Cummins et al. fails to disclose the features of a topology that describes a flow of media data through a plurality of multimedia components connected in a certain order.

Additionally, Cummins et al. fails to teach the features of processing via an extensible symbolic abstraction of the multimedia components. Instead, Cummins et al. merely teaches retrieving topology data and loading it onto a database system for monitoring purposes (see col. 2, lines 47-50), but is silent as to processing via an extensible symbolic abstraction of the topology data.

Furthermore, with respect to the features of claim 4 as originally filed, at least some of which have been included in independent claim 1 as amended, the Office Action on page 5 asserts that Cummins et al. discloses the features of "the topology being independent of maintaining the stream state of control information enables dynamic adding and removing multimedia components from the topology" (citing col. 9, lines 49-52 and col. 11, lines 62-64). Applicants disagree.

Cummins et al. recites (emphasis added):

> In step 616, the network performance data parser 302 creates an entry in the tracking file 304 for referencing the selected performance data file 308. Continuing to step 618, the network performance data parser 302 adds the reformatted performance message data record to the performance data file 308. Step 618 is described in greater detail below. After step 618, the network performance data parser 302 continues to step 620 and returns processing to step 514 in FIG. 5. (see col. 9, lines 47-55)
>
> In step 1114, if the tracking file 306 returns an EOF, the network performance data loader 314 proceeds to step 1116. In step 1116, the network performance data loader 314 closes and deletes the current tracking file 308 because it has completed its processing of that tracking file 308. (see col. 11, lines 60-64)

Therefore, the above sections of Cummins et al. relied upon by the Office Action relate solely to the storing and retrieving of performance data from a telecommunications network, as opposed to topology data. Although Cummins et al. generally discloses storing and retrieving topology information, Cummins et al. is completely silent as to the *specific* features of a topology that is

independent of maintaining a stream state of control information for a plurality of multimedia components that enables dynamic adding and removing of one or more multimedia components from the topology.

As a result, Gupta et al. and Cummins et al., alone or in combination, fail to teach or suggest at least the following elements of independent claim 1 as amended (emphasis added):

> 1. A multimedia processing system comprising:
>
> . . .
>
> a topology loader component coupled to the media session component, the topology loader component configured to load a topology that describes a flow for the received media data through a plurality of multimedia components connected in a certain order to enable processing via an extensible symbolic abstraction of the multimedia components, the topology loader configured to ensure that events described in the topology occur, wherein the topology is independent of maintaining a stream state of control information for the plurality of multimedia components that enables dynamic adding and removing of one or more multimedia components from the topology.

Therefore, since Gupta et al. and Cummins et al. fail to disclose or suggest each and every element of independent claim 1, this claim is allowable.

Claims 2-3, 6-7 and 10 depend from claim 1. As discussed above, claim 1 is allowable. For at least this reason, and the features recited therein, claims 2-3, 6-7 and 10 are also allowable.

Since claim 4 has been canceled, the rejection of this claim is rendered moot.

Furthermore, with respect to dependent claims 6 and 7, the Office Action on page 5 asserts that Cummins et al. discloses the features recited in these claims (citing col. 9, lines 49-52 and col. 11, lines 62-64). Applicants disagree.

As discussed above with respect to claim 4, the sections of Cummins et al. relied upon by the Office Action in rejecting claims 6 and 7 relate solely to the storing and retrieving of performance data from a telecommunications network, as opposed to topology data. As a result,

Cummins et al. fails to disclose the features of the topology includes a segment topology node configured to provide an encapsulated topology that can be inserted and deleted from a topology, the segment topology node including one or more inputs and one or more outputs and one or more nodes, as included in claim 6. Additionally, Cummins et al. fails to disclose the features of the topology includes a tee node configured to provide a primary and secondary output stream therefrom, the tee node configured to respond to logic dictating a discard ability of data output from one or more of the primary and the secondary output stream, as included in claim 7.

For at least the above reasons, reconsideration and withdrawal of the rejection of claims 1-4, 6-7 and 10 under 35 U.S.C. §103(a) are respectfully requested.

B. Rejections Based on Gupta et al., Cummins et al. and Schwan et al.

The Office Action rejects claims 8-9, 11-12 and 14-15 under 35 U.S.C. §103(a) as being unpatentable over Gupta et al. in view of Cummins et al. and further in view of Schwan et al. (NPL: "Topologies" – Computational Messaging for Multicomputers). Applicants respectfully traverse this rejection for at least the following reasons.

As discussed above, Gupta et al. and Cummins et al. fail to disclose or suggest all of the elements of independent claim 1. Schwan et al. fails to cure this defect.

Schwan et al. generally discloses topologies as an operating system construct with which programmers may efficiently implement arbitrary communication graphs linking multiple tasks of a parallel program (see abstract). However, Schwan et al. does not teach or suggest the specific features discussed above with respect to independent claim 1 as amended.

For example, Schwan et al. discloses that a topology structure is its logical communication structure, including attributes that determine data flow within this structure (see Section 3.1, page 583, column 1, last paragraph). However, Schwan et al. fails to disclose the features of a topology that describes a flow of media data through a plurality of multimedia components connected in a certain order.

Additionally, although Schwan et al. generally discloses topology mapping (see Section 3.1, page 583, column 2, 1st paragraph), the reference fails to teach the features of processing via an extensible symbolic abstraction of the multimedia components.

Furthermore, Schwan et al. discloses that a topology's structure is a directed graph, which may be described as a list of vertices connected with edges. Each vertex contains information about its execution state, storage for intermediate data, and services represented as executable code segments (see Section 3.1, page 583, column 2, 1st and 2nd full paragraphs). However, Schwan et al. is completely silent as to the features of a topology that is independent of maintaining a stream state of control information for a plurality of multimedia components that enables dynamic adding and removing of one or more multimedia components from the topology.

Therefore, since Gupta et al., Cummins et al. and Schwan et al., alone or in combination, fail to disclose or suggest each and every element of independent claim 1, this claim is allowable over the cited references.

Claims 8-9, 11-12 and 14-15 depend from claim 1. As discussed above, claim 1 is allowable. For at least this reason, and the features recited therein, claims 8-9, 11-12 and 14-15 are also allowable.

For at least the reasons above, reconsideration and withdrawal of the rejection of claims 8-9, 11-12 and 14-15 under 35 U.S.C. §103(a) are respectfully requested.

C. Rejections Based on Gupta et al., Cummins et al. and Rosset

The Office Action rejects claims 5 and 13 under 35 U.S.C. §103(a) as being unpatentable over Gupta et al. in view of Cummins et al. and further in view of Rosset (2003/0133545). Applicants respectfully traverse this rejection for at least the following reasons.

As discussed above, Gupta et al. and Cummins et al. fail to disclose or suggest all of the elements of independent claim 1. Rosset fails to cure this defect.

Rosset relates to a data processing system and method and, more particularly, to a computer aided telephony system and method which uses RTSP and associated protocols to support voice applications and audio processing by various, distributed, speech processing engines (see abstract). The Office Action primarily cites Rosset for its teaching that (emphasis added):

> In response to an incoming call from the communication device 108 an instance of the voice application 114 is instantiated. The voice application 114 is arranged to take the caller through a series of voice menus and to provide an automated telephony service. If, for example, the caller is required to utter a reply to an input action in response to a recently output voice menu, the application 114 will instruct the media group provider 116 to enter a record mode of operation in which the data stream, representing uncompressed audio from the communication device 108 or a DTMF tone, received, having been processed by the telephony functionality 118 and telephony hardware 120, from the PSTN network 106 is directed to the voice processing node 130 and ultimately to one of the automatic speech recognition engines 140 where the incoming audio stream, which represents the audio input command of the caller, is processed. (see paragraph 40)

However, Rosset does not teach or suggest the features discussed above with respect to independent claim 1.

Therefore, since Gupta et al., Cummins et al. and Rosset, alone or in combination, fail to disclose or suggest each and every element of independent claim 1, this claim is allowable over the cited references.

Claims 5 and 13 depend from claim 1. As discussed above, claim 1 is allowable. For at least this reason, and the features recited therein, claims 5 and 13 are also allowable.

Furthermore, with respect to claim 5, the Office Action on page 9 asserts that Rosset discloses the features of the claim (citing paragraph 40). Applicants disagree.

As indicated above, the sections of Rosset relied upon by the Office Action in rejecting claim 5 merely disclose that in response to an incoming call from a communication device 108

an instance of a voice application 114 is instantiated (see paragraph 40). However, Rosset fails to disclose the features of a topology that is the extensible symbolic abstraction of media objects, where the media objects are independent of an instantiation requirement, as included in claim 5.

For at least the reasons above, reconsideration and withdrawal of the rejection of claims 5 and 13 under 35 U.S.C. §103(a) are respectfully requested.

D. Rejections Based on Schwan et al. and Rosset

The Office Action rejects claims 16-35 under 35 U.S.C. §103(a) as being unpatentable over Schwan et al. in view of Rosset. Applicants respectfully traverse this rejection for at least the following reasons.

The Office Action on page 12, in regards to the features of claims 18 and 30, at least some of which have been included in independent claims 16 and 28 as amended, respectively, asserts that Schwan et al. discloses wherein the topology includes a segment topology node configured to provide an encapsulated topology that can be inserted and deleted from the topology, the segment topology node including one or more inputs and one or more outputs (citing page 583, column 2, paragraph 2). Applicants disagree.

Schwan et al. discloses that a topology's structure is a directed graph, which may be described as a list of vertices connected with edges. A topology's vertices contain the application-dependent components of the topology's communication protocols – termed services. Each vertex contains information about its execution state, storage for intermediate data, and services represented as executable code segments (see Section 3.1, page 583, column 2, 1st and 2nd full paragraphs). However, Schwan et al. fails to teach the features of a topology that includes a segment topology node configured to provide an encapsulated topology that can be inserted and deleted from the topology, the segment topology node including one or more inputs and one or more outputs. In fact, Schwan et al. is completely silent as to inserting and deleting from an overall topology a segment topology node providing an encapsulated topology.

Moreover, based on a fair reading of the relevant disclosures in Schwan et al, it is unclear how "services" can be reasonably interpreted to be "insert, delete etc." as indicated by the Office Action on page 12.

Rosset relates to a data processing system and method and, more particularly, to a computer aided telephony system and method which uses RTSP and associated protocols to support voice applications and audio processing by various, distributed, speech processing engines (see abstract). For example, the Office Action on page 11 primarily cites Rosset for its teaching that (emphasis added):

> In response to an incoming call from the communication device 108 an instance of the voice application 114 is instantiated. The voice application 114 is arranged to take the caller through a series of voice menus and to provide an automated telephony service. If, for example, the caller is required to utter a reply to an input action in response to a recently output voice menu, the application 114 will instruct the media group provider 116 to enter a record mode of operation in which the data stream, representing uncompressed audio from the communication device 108 or a DTMF tone, received, having been processed by the telephony functionality 118 and telephony hardware 120, from the PSTN network 106 is directed to the voice processing node 130 and ultimately to one of the automatic speech recognition engines 140 where the incoming audio stream, which represents the audio input command of the caller, is processed. (see paragraph 40)

However, Rosset fails to cure the defects in Schwan et al. discussed above.

Furthermore, the sections of Rosset relied upon by the Office Action merely disclose that in response to an incoming call from a communication device 108 an instance of a voice application 114 is instantiated (see paragraph 40). However, Rosset fails to disclose the features of abstracting the connection between the nodes to enable the topology to be fully or partially specified independent of instantiation of the media objects.

As a result, Schwan et al. and Rosset, alone or in combination, fail to teach or suggest at least the following elements of independent claims 16 and 28 as amended, respectively

(emphasis added):

> 16. A computer-implemented method for creating a data structure that defines a topology that identifies a flow of multimedia data through a collection of one or more media objects forming one or more nodes, the method comprising:
>
> . . .
>
> abstracting the connection between the nodes to enable the topology to be fully or partially specified independent of instantiation of the media objects, wherein the topology includes a segment topology node configured to provide an encapsulated topology that can be inserted and deleted from the topology, the segment topology node including one or more inputs and one or more outputs.
>
> 28. A computer-readable medium having computer-executable instructions for creating a data structure that defines a topology that identifies a flow of multimedia data through a collection of one or more media objects forming one or more nodes, the computer-executable instructions performing acts comprising:
>
> . . .
>
> abstracting the connection between the nodes to enable the topology to be fully or partially specified independent of instantiation of the media objects, wherein the topology includes a segment topology node configured to provide an encapsulated topology that can be inserted and deleted from the topology, the segment topology node including one or more inputs and one or more outputs.

Therefore, since Schwan et al. and Rosset fail to disclose or suggest each and every element of independent claims 16 and 28, these claims are allowable.

Claims 17 and 19-27 depend from claim 16. Claims 29 and 31-35 depend from claim 28. As discussed above, claims 16 and 28 are allowable. For at least this reason, and the features recited therein, claims 17, 19-27, 29 and 31-35 are also allowable.

Since claims 18 and 30 have been canceled, the rejection of these claims is rendered moot.

For at least the above reasons, reconsideration and withdrawal of the rejection of claims 16-35 under 35 U.S.C. §103(a) are respectfully requested.

3. Conclusion

Accordingly, in view of the above amendment and remarks it is submitted that the claims are patentably distinct over the cited references and that all the rejections to the claims have been overcome. Reconsideration and reexamination of the present application is requested. Based on the foregoing, applicants respectfully request that the pending claims be allowed, and that a timely Notice of Allowance be issued in this case. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the applicants' attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee that is not covered by an enclosed check please charge any deficiency to Deposit Account No. 50-0463.

Respectfully submitted,

Microsoft Corporation

Date: May 14, 2010

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